

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A configurable real time video data processor arranged to provide a single synchronized display video data stream having a single display video format to a display unit having an associated set of display attributes from a number of video streams of different video formats, comprising:

a number of ports each of which is configured to receive an one of the video streams input data stream wherein at least one of the ports is a network interface that provides a bi-directional link between network applications and data provided by a network and the real time video processor; and

a format converter unit coupled to one of the ports arranged to convert a corresponding input data stream to a progressive type data stream, if needed;

a number of adaptive image converter units each coupled an associated one of the ports suitable for converting a the corresponding video input data stream to a corresponding converted data stream having associated converted data stream attributes a converted video stream having the single display video formats;

an image compositor unit arranged to combine the converted data to form a composited data stream;

an image enhancer unit arranged to enhance the composited data stream to form an enhanced data stream;

a display unit interface arranged process the enhanced data stream to form the display data; and

a memory unit bi-directionally coupled to each of the image converter units and the image compositor arranged to store selected portions of selected ones of the data streams

~~from the image converter units and to provide the selected portions to the image compositor as needed.~~

2. (Currently Amended) A configurable real time ~~data~~ video processor as recited in claim 1, further comprising:

~~a progressive scan timing generator arranged to provide a progressive scan timing signal to the converter units such that the converted data streams are progressive scan type data streams~~

a format converter unit coupled to one of the ports arranged to convert a corresponding video stream to a progressive video stream, if needed.

3. (Currently Amended) A configurable real time ~~data~~ video processor as recited in claim 1, further comprising:

~~a de-interlacing unit coupled to the format converter unit arranged to de-interlace an interlaced type video stream as needed~~

an image compositor unit arranged to combine any number of the converted video streams to form a composited video stream;

an image enhancer unit arranged to enhance the composited video stream to form an enhanced video stream;

a display unit interface arranged process the enhanced video stream to form the display data; and

a memory unit bi-directionally coupled to each of the image converter units and the image compositor arranged to store selected portions of selected ones of the video streams from the image converter units and to provide the selected portions to the image compositor unit as needed.

4. (Currently Amended) A configurable real time ~~data~~ video processor as recited in claim 2, wherein the converter unit further comprises:

a frame rate conversion unit arranged to synchronize each converted data stream to a display frame rate.

5. (Currently Amended) A configurable real time ~~data~~ video processor as recited in claim 4, wherein the display frame rate is locked to a selected frame rate.

6. (Currently Amended) A configurable real time ~~data~~ video processor as recited in claim 5, wherein the locked frame rate corresponds to one of the incoming data streams.

7. (Currently Amended) A configurable real time ~~data~~ video processor as recited in claim 5, wherein the display frame rate is a free running frame rate.

8. (Currently Amended) A configurable real time ~~data~~ video processor as recited in claim 1, wherein the ports include,

a video receiver port arranged to receive video data; and
style="padding-left: 40px;">a user interface port arranged to receive user input commands; and wherein a the network interface arranged bi-directionally connected to a network is arranged to transceive packet based data to and from the network.

9. (Currently Amended) A configurable real time ~~data~~ video processor as recited in claim 1, wherein the video data processor is an integrated circuit.

10. (Currently Amended) A configurable ~~data~~ video processor as recited in claim 1, wherein the display attributes are Extended Display Identification Data (EDID).

11. (Original) A configurable real time video processor as recited in claim 6, wherein the display interface further comprises:

an interlacer unit arranged to interlace a progressive scan image when the display unit is an interlaced type display unit; and

a progressive scan bypass unit arranged to bypass the interlacer when the display unit is a progressive scan type display unit.

12. (Currently Amended) A method of adaptively providing a ~~data stream~~ single synchronized display video stream having a single display video format to a display unit having an associated set of display attributes from a number of video streams of different video formats by a video processor, comprising:

~~receiving a number of input data streams at a number of corresponding input ports;~~
~~converting the input data streams to a corresponding converted data stream having associated converted data stream attributes;~~

~~compositing the converted data streams by an image compositor;~~

~~enhancing the composited data stream; and~~

~~processing the enhanced data stream for display on the display unit.~~

receiving one of the video streams at one of a number of ports wherein at least one of the ports is a network interface that provides a bi-directional link between network applications and data provided by a network and the real time video processor; and
converting the corresponding video stream to a converted video stream having the single display video format.

13. (Currently Amended) A method as recited in claim 12, further comprising:
~~providing a progressive scan timing signal such that the converted data streams are progressive scan type data streams~~
converting a corresponding video stream to a progressive video stream, if needed.

14. (Currently Amended) A method as recited in claim 12, further comprising:
combining any number of the converted video streams to form a composited video stream;
enhancing the composited video stream to form an enhanced video stream;
processing the enhanced video stream to form the display data; and
storing selected portions of selected ones of the video streams from the image converter units and to provide the selected portions to the image compositor unit as needed
~~storing selected portions of selected ones of the data streams in a memory unit; and~~
~~providing the selected portions to the image compositor as needed.~~

15. (Original) A method as recited in claim 13, further comprising:
synchronizing each converted data stream to a display frame rate.

16. (Original) A method as recited in claim 15, further comprising:
locking the display frame rate to a selected frame rate.

17. (Original) A method as recited in claim 16, wherein the locked frame rate corresponds to one of the incoming data streams.

18. (Original) A method as recited in claim 15, wherein the display frame rate is a free running frame rate.

19. (Currently Amended) A method as recited in claim 12, wherein the ports include, a video receiver port arranged to receive video data; a user interface port arranged to receive user input commands; and wherein a the network interface arranged bi-directionally connected to a network is arranged to transceive packet based data to and from the network.

20. (Currently Amended) A method as recited in claim 12, wherein the ~~data video~~ processor is an integrated circuit.

21. (Original) A method as recited in claim 12, wherein the display attributes are Extended Display Identification Data (EDID).

22. (Original) A method as recited in claim 21, further comprising: interlacing a progressive scan video image when the display unit is an interlaced type display unit; and bypassing the interlacing when the display unit is a progressive scan type display unit.

23. (Currently Amended) Computer program product for adaptively providing a ~~data stream~~ single synchronized display video stream having a single display video format to a display unit having an associated set of display attributes from a number of video streams of different video formats by a video processor, comprising:

computer code for receiving a number of input data streams at a number of corresponding input ports;

computer code for converting the input data streams to a corresponding converted data stream having associated converted data stream attributes;

computer code for compositing the converted data streams by an image compositor;

computer code for enhancing the composited data stream;

computer code for processing the enhanced data stream for display on the display unit;

computer code for receiving one of the video streams at one of a number of ports wherein at least one of the ports is a network interface that provides a bi-directional link between network applications and data provided by a network and the real time video processor; and

computer code for converting the corresponding video stream to a converted video stream having the single display video format; and

computer readable medium for storing the computer code.

24. (Currently Amended) Computer program product as recited in claim 23, further comprising:

computer code for providing a progressive-scan timing signal such that the converted data streams are progressive-scan type data streams converting a corresponding video stream to a progressive video stream, if needed.

25. (Currently Amended) Computer program product as recited in claim 23, further comprising:

computer code for storing selected portions of selected ones of the data streams in a memory unit; and

computer code for providing the selected portions to the image compositor as needed
computer code for combining any number of the converted video streams to form a
composited video stream;

computer code for enhancing the composited video stream to form an enhanced
video stream;

computer code for processing the enhanced video stream to form the display data;
and

computer code for storing selected portions of selected ones of the video streams
from the image converter units and to provide the selected portions to the image
compositor unit as needed

26. (Original) Computer program product as recited in claim 24, further comprising:
computer code for synchronizing each converted data stream to a display frame rate.
27. (Original) Computer program product as recited in claim 26, further comprising:
computer code for locking the display frame rate to a selected frame rate.
28. (Original) Computer program product as recited in claim 27, wherein the locked
frame rate corresponds to one of the incoming data streams.
29. (Original) Computer program product as recited in claim 24, wherein the display
frame rate is a free running frame rate.
30. (Currently Amended) Computer program product as recited in claim 23, wherein the
ports include,

a video receiver port arranged to receive video data;
a user interface port arranged to receive user input commands; and
wherein a the network interface arranged bi-directionally connected to a network is
arranged to transceive packet based data to and from the network..

31. (Original) Computer program product as recited in claim 23, wherein the data processor is an integrated circuit.

32. (Original) Computer program product as recited in claim 23, wherein the display attributes are Extended Display Identification Data (EDID).

33. (Original) Computer program product as recited in claim 30, further comprising:
computer code for interlacing a progressive scan video image when the display unit is an interlaced type display unit; and
computer code for bypassing the interlacing when the display unit is a progressive scan type display unit.